Estimating Disenfranchisement in U.S. Elections, 1870-1970

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While it is commonly understood that the poll tax and literacy tests, among other measures, were used effectively in the South to disenfranchise African American voters from the late-19th through the mid-20th century, what is *not* well known is how much those disenfranchising laws mattered. Specifically, how much did the enactment of poll taxes or literacy tests affect turnout in federal and state elections? And how much did those disenfranchising provisions dampen vote totals for Republican candidates in the South? Employing a difference-in-differences design over 101-year period, we answer these questions and provide some precision to our collective knowledge of the "disenfranchising era" in American electoral politics. Overall, we find that the poll tax was the main driver of disenfranchisement in Southern elections, with literacy tests and the Australian ballot providing some secondary effects. We also find that ex-felon disenfranchisement laws were considerably more important – both in reducing turnout as well as Republican vote share in Southern elections – than has been traditionally understood. Finally, we unpack "South" and find unsurprisingly that racial politics drove these results: the disenfranchising institutions were more impactful in states with a larger African American population share.

Introduction

In the aftermath of the Civil War, the United States attempted a new experiment in democratic representation. Led by Republicans in Congress, who sought a "new birth of freedom," all eleven states of the vanquished Confederacy were re-integrated into the Union by 1870, with former slaves ("freedmen") elevated to national citizenship and provided with suffrage rights. While significant gains were made during Reconstruction, they did not last. By 1877, Democrats controlled all eleven ex-Confederate states, routinely using terror and intimidation against the freedmen and their White Republican allies. By 1890, Southern Democrats sought to entrench their political control formally, using statutes and constitutional revisions to disenfranchise the freedmen. Chief among these were poll taxes and literacy tests. By 1908, all eleven Southern states had adopted some mix of disenfranchising provisions, which reduced Black voting in the ex-Confederacy to near zero.

Much of this history is well known,[1] as well as that of the 1950s and 1960s, when liberal national Democrats – both fortified and pressured by leaders of the civil rights movement – helped sweep those disenfranchising provisions away. The 24th Amendment (1964), the Civil Rights Act of 1964, and the Voting Rights Act of 1965 did away with the poll tax, literacy tests, and other disenfranchising laws in federal elections. And by 1970, Congress and the Supreme Court had extended those bans to all elections nationwide.

What is *not* well known is how much those disenfranchising laws mattered. Specifically, how much did the enactment of poll taxes or literacy tests affect turnout in federal and state elections? And how much did these disenfranchising provisions dampen vote totals for

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[1] For those looking for a primer, Key (1949) is an authoritative and comprehensive starting point. Kousser (1974) and Perman (2001) are important updates.

Republican candidates in the South? While some work examines the initial period when the disenfranchising laws were adopted (Kousser 1974; Rusk 1974; Rusk and Stucker 1978), as well as the later period when disenfranchising laws were eliminated (Filer, Kenny, and Morton 1991; Besley and Case 2003; Springer 2014), no studies examine the *entire* period. And without a focus on the complete time in which the disenfranchising laws were in place, a precise estimate of how impactful they were cannot be obtained.

We perform such an analysis in this paper. We explore the period from 1870 (when all ex-Confederate states were back in the Union) to 1970 (when literacy tests were finally eliminated). Moreover, we look not just at the eleven Southern states, but at all 50 states over that timespan. This allows us to examine factors that affected turnout and voting across the entire nation. This is important, as some disenfranchising laws – like literacy tests and ex-felon voting prohibitions – extended beyond the South. In sum, we compile a dataset of statewide executive elections – presidential and gubernatorial – in all 50 states over 101 years, which allows us to capture the full range of disenfranchising provisions and conduct a difference-in-difference analysis (thus tracking when key laws turned "on" or "off") to provide the first systematic analysis of the "disenfranchisement era" in U.S. elections.[2]

To preview our main results, we find that the poll tax – used exclusively in the ex-Confederate states – was the main driver of disenfranchisement. The poll tax could prevent nearly a quarter of the electorate from voting by increasing the cost of doing so. As these voters were far more likely to favor the Republicans, their exclusion dealt a crushing blow to the GOP's hopes of winning in the South. We also find that ex-felon disenfranchisement was strongly

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[2] We designate it the "disenfranchisement era" for an easy reference to the specific period we study. We note, though, that almost all African Americans, Native Americans, and women were disenfranchised prior to the period we analyze.

associated with reduced turnout and Republican weakness – with the relationship strongest in places with large Black populations. We also find some – but less clear – evidence for the impact of literacy tests and the Australian ballot. Overall, literacy tests, unlike poll taxes and ex-felon disenfranchisement laws, may have primarily excluded uneducated Whites from voting, largely because the former two institutions – along with the Australian ballot – were so devastating to the Black electorate.

The paper proceeds as follows. We first describe over a century of change in turnout and GOP vote share in presidential elections. In Section III, we identify our data and empirical strategy for estimating the effect of various disenfranchising laws over time and present our results. We then dig deeper and unpack "South" by examining the role that race played in electoral outcomes both nationally and regionally. We then conclude with a discussion of our results.

II. Turnout and Republican Vote Share by Region: A Century of Change

By 1867, Republicans in Congress had wrestled control of Reconstruction from President Andrew Johnson, who had sought to return the eleven Confederate states to the Union in a manner that would have all but replicated the antebellum social and political order, with only the elimination of slavery being the difference.[3] So-called "Radical" Republicans in Congress had a different idea. Once in control, they sought to elevate the freedmen by granting them citizenship, the franchise, and civil rights protections. The Reconstruction Act of 1867 provided African Americans in the South with voting rights through the rewriting of state constitutions. And the

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[3] See Valelly (2004) and Jenkins and Heersink (2020) for good political histories of the Reconstruction Era.

Fifteenth Amendment (1870) prohibited race, color, or previous condition of servitude from being used to deny voting rights (anywhere in the country) going froward.

By 1870, all ex-Confederate states were back in the Union, and citizens from the entire nation cast votes in the 1872 presidential election. It is from that point on – through 1968 – that we track both turnout and Republican vote share in presidential elections across the entire country. In Figure 1, we show national turnout in presidential elections, with Southern states compared to all other states. In Figure 2, we show a similar graph, but with the Republican Party's vote share in the election as the outcome of interest.

Figure 1: Turnout in Presidential Elections, South and Non-South, 1872-1968
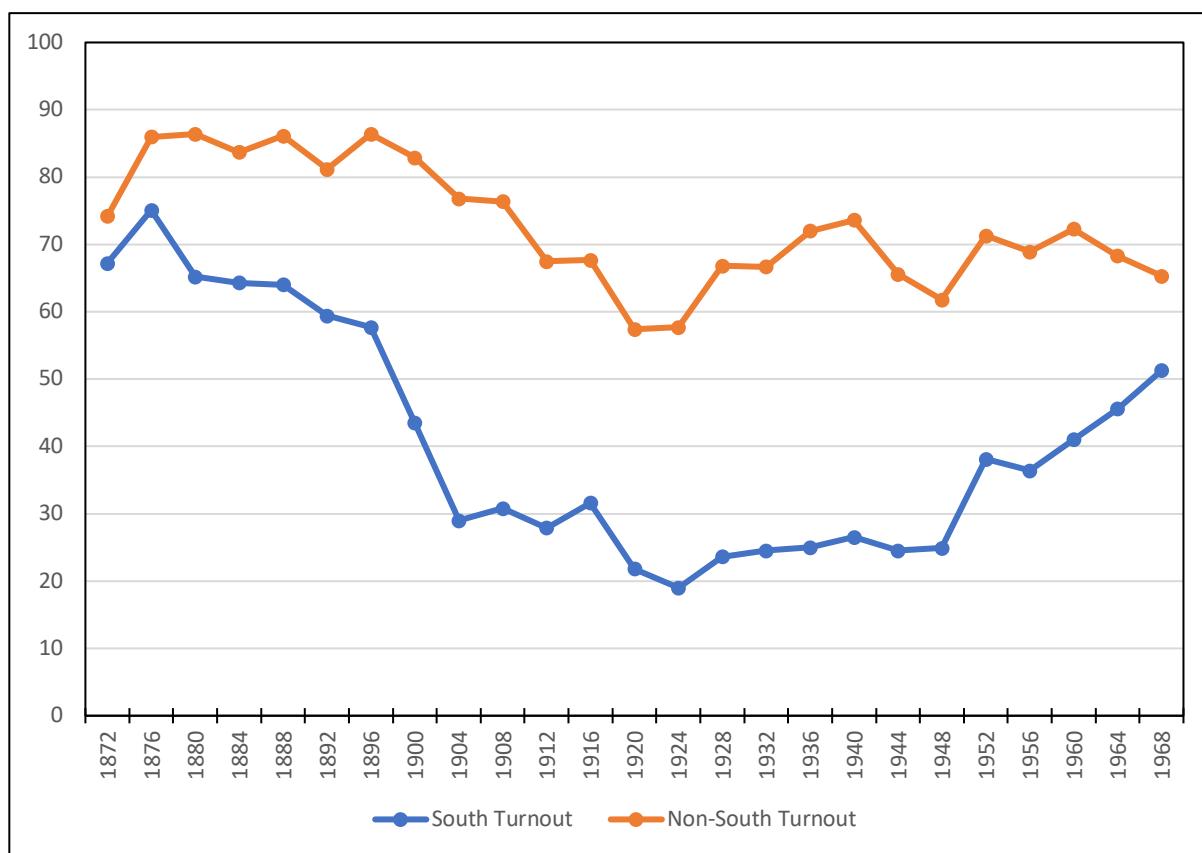
Source: Burnham (2010)

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Figure 2: GOP Vote Share in Presidential Elections, South and Non-South, 1872-1968
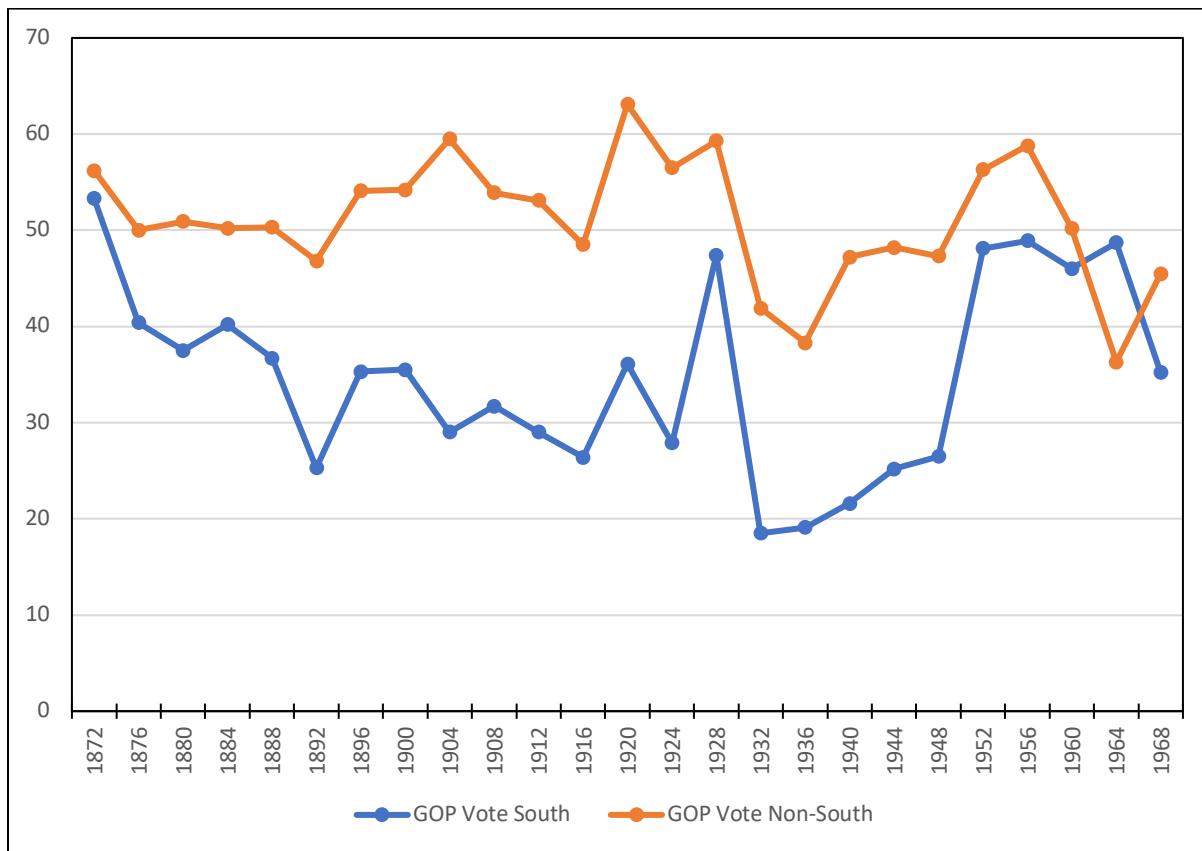
In 1872, the incumbent Republican presidential nominee, Ulysses S. Grant, won eight of eleven Southern states, and carried popular-vote majorities in both the South and non-South. This gave Republican leaders hope that a GOP South, built on freedmen's votes, was taking hold despite violence by Democratic-backed terror groups like the Ku Klux Klan and Red Shirts. Yet, mortal difficulties laid ahead. In 1873, a financial panic swept the nation and ushered in a lengthy recession that was especially hard on the over-leveraged Southern states. Republican governments throughout the South were blamed for mismanagement and fraud, and Democrats used these recriminations as a pretext for ramping up their insurgency. By 1876, only three

Southern states remained marginally Republican, and by 1877 the entire ex-Confederacy was "redeemed" by White Democrats.

Between 1880 and 1924, the Republicans won no electoral-college votes in the South. During this time, a profound change occurred within the Southern electorate. Once in power, White Southern Democrats continued to use violence and intimidation to dampen African-American voting power. But between 1877 and 1890, Southern states adopted no significant legal measures to disenfranchise African Americans. Through the 1888 presidential election, Southern turnout was still greater than 60 percent (Northern turnout exceeded 80 percent). But beginning with Mississippi in 1890, White Southern Democrats began a process of disenfranchising African Americans (and some poor Whites) through a variety of techniques, like poll taxes and literacy tests, which we discuss fully in Section III.

Southern turnout in presidential elections dipped below 60 percent starting in 1892. By 1900, when a number of Southern states had disenfranchising provisions in place, turnout fell below 45 percent – while remaining above 80 percent outside of the South. GOP vote share, by comparison, fell to about 35 percent in the South, while remaining comfortably above 50 percent outside of the South. A sizable drop in Southern turnout began in 1904, when all states but Georgia had their full set of disenfranchising provisions in place. Between 1904 and 1948, Southern turnout averaged under 26 percent, with only two elections with greater than 30 percent. Non-Southern turnout dropped during the same period, but averaged 67 percent. The Republican Party won about 28 percent of Southern votes in presidential elections between 1904 and 1948 – with an aberration of 47.4 percent in 1928, when New York Governor Al Smith, the Democratic nominee, faced a significant anti-Catholic backlash throughout the nation.

Beginning in 1952, turnout and GOP vote share in the South both began increasing – with GOP vote share rising substantially with General Dwight D. Eisenhower's selection as the Republican presidential nominee. Eisenhower's popularity would result in a more than 20 percentage point increase in GOP vote share in the South, as he won four Southern states.[4] Republican vote share hovered over 45 percent for the next three presidential elections – with Eisenhower, Richard Nixon, and Barry Goldwater winning five, three, and five Southern states respectively – before sinking to 35 percent in 1968, when Independent George Wallace cut significantly into Richard Nixon's potential voting base (although Nixon still won five Southern states). In 1960, turnout in the South was 41 percent; in 1968, it crossed the 51 percent mark.

III. Methods of Shaping Electorates

There are two primary tactics in shaping a voting electorate – changing the eligibility to vote and changing the propensity of those who are eligible to cast a vote.[5] In the former case, formal restrictions directly prohibit targeted groups from voting. A prominent example is the historical restriction prohibiting women from voting. Within a model of turnout, this effectively adds an infinite cost to voting. Because turnout is a fraction where the numerator is the set of people who vote and the denominator is the set of people who are legally eligible to vote, these direct, formal restrictions affect turnout by removing from the denominator and the numerator simultaneously (so long as at least one member of the excluded group would have voted). The effect on turnout can be positive, negative, or zero, depending on the rate at which the excluded

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[4] These were the first Southern states won by a Republican presidential nominee since Herbert Hoover won five in 1928. In the 12 presidential elections spanning 1880 and 1924, only one Southern state went Republican – Tennessee in 1920, which was won by Warren Harding.
[5] For a discussion of how total votes cast (the numerator) and the voting-eligible population (the denominator) are determined in historical turnout measures, see McIver (2005) – especially the "Documentation" section of Table Eb62-113 – and Burnham (2010).

group would have voted relative to the rate that the non-excluded group voted. The effect on the partisan outcome of the election can also vary in either direction, depending on how the excluded group compared to the non-excluded group. Direct policies may be more sharply defined with the intended targets – such as women, children, and non-citizens – spelled out in the legislation.

The second method does not formally prohibit someone from voting, but instead leaves them eligible to vote and raises their costs (in a finite way) to voting, thus making it less likely they will do so. The poll tax and literacy tests are two examples: they did not make someone ineligible to vote. Instead, they added a cost (in literal terms of money in the case of the poll tax and in terms of effort and human capital in literacy tests) that made voting difficult for many poor and uneducated eligible voters. Notably, these policies do not affect the denominator, which remains the same, and instead reduces only the numerator. In the naïve sense, indirect effects can only lower turnout, not increase it.[6] These indirect policies may shape partisan outcomes in either direction, depending on the relative support for a given party in the excluded group compared to the non-excluded group. Indirect policies may often be less well targeted, capturing intended groups as well as those collaterally disenfranchised. For example, many policies that targeted the formerly enslaved used their high rates of poverty and low rates of education as targeting methods. But these polices also captured many poor and uneducated whites at the same time.

There are, of course, other methods that raise costs to voting without formal policy, such as the terroristic practices that we discussed in the preceding section. These can be combined with official policy by, for example, aggressive enforcement of literacy tests, or refusing to accept payment of a poll tax. Intimidation and violence can be used to keep people away from

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[6] It is possible that the act of creating an indirect restriction on voting can cause others to desire to vote more than they otherwise would have, through a type of backlash effect, and thereby positively increase turnout.

even attempting to jump through the hoops created to enable voting. Thus, these informal practices continue and do influence outcomes even in the presence of formal institutions. In this paper, we are exclusively focused on the results of formal policies, but we recognize that informal violence and intimidation and other social factors continued to affect voting outcomes in the United States during the period of Jim Crow laws in the South. Despite these facts, states did choose to pass and apply such disenfranchising laws, and so our inquiry is about their effects.

Specific Policies We Consider

We consider four primary racially-motivated formal policies that indirectly altered turnout and Republican success during the period between 1870 and 1970. Most historians agree that the poll tax and the literacy test were the two primary techniques of indirect disenfranchisement. We also analyze the impact of various forms of felon and ex-felon disenfranchisement. Finally, we consider the argument that the Australian ballot was strategically used to disenfranchise African Americans. In addition, we account for a significant direct eligibility change, the granting of suffrage to women, and an informal practice that may also have affected African American political participation, lynching.

The Poll Tax

The poll tax was a fee one needed to pay to vote, with the cost ranging between $1 and $2 annually.[7] It had to be paid months in advance – sometimes up to a year – and a citizen needed to present a receipt at the polls in order to vote. Some states allowed these taxes to accumulate, with prospective voters required to pay off several years' worth of unpaid poll taxes in order to

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[7] Most states charged a $1 annual rate. Alabama, Texas and Virginia charged $1.50, with Mississippi charging $2. For rates and other features, see Rusk (2001: 34), Table 2-16.

vote. Adjusted for inflation, a poll tax around the turn of the century was equivalent to about $30 or $60 in 2022 U.S. Dollars, depending on the amount of the poll tax. In Figure 3, we present the set of states that used a poll tax at any point between 1870 and 1970, which is coterminous with the region we define as the "South." As the figure illustrates, the poll tax was used exclusively in the eleven ex-Confederate states. As an indirect disenfranchisement tool, the poll tax should have reduced turnout by making those eligible to vote far less likely to do so due to the cost. At the same time, the poll tax should have reduced Republican success in the South by excluding African Americans and poorer Whites who were more likely to support the Republican Party through much of the period we analyze (1870-1970).

Figure 3. States that Employed Poll Taxes at Some Point, 1870-1970
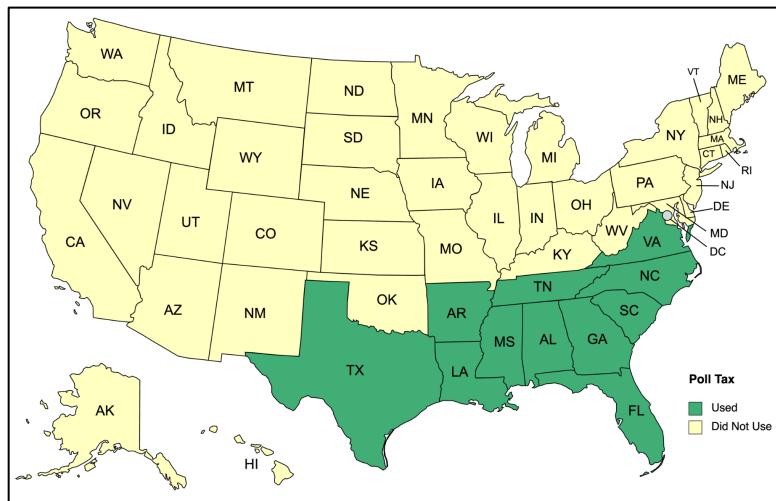
Source: Rusk (2001), Table 2-15.

The era of poll taxes began to unwind in the early-to-mid-20th Century. Three Southern states – North Carolina (1920), Louisiana (1934), and Florida (1938) – were early (re)movers with Georgia (1945), South Carolina (1951), and Tennessee (1953) following suit by the early 1950s. The remaining five Southern states held out, even as Congress tried repeatedly (and unsuccessfully) in the 1940s to push for a federal law banning the poll tax (Jenkins and Peck

2013).[8] Eventually, the civil rights movement of the 1950s and 1960s led Congress to adopt

legislation (in 1962) to constitutionally prohibit the use of poll taxes in federal elections. The

24th Amendment was ratified by the requisite number of states in 1964, and its provisions were

extended to all elections by the Supreme Court in *Harper v. Virginia Board of Elections* in 1966.

Literacy Tests

Literacy tests were evaluations that citizens had to pass before they could vote. The fact

that the tests could be passed or failed, in theory, by anyone makes them a classic indirect

method of disenfranchisement. Though commonly called "literacy" tests, they are more

accurately thought of language assessments that could take the form of reading or writing tests.

States varied in their implementation: some required passage in one or the other, while others

required both reading and writing skill. Moreover, election registrars were the sole judges of

whether a would-be voter "passed" their test – which could be rigged by local Whites seeking to

disenfranchise Blacks who attempted to vote.

Seven of the eleven Confederate states (and one border state, Oklahoma) would adopt

literacy tests.[9] Additionally, at various points, literacy tests were enacted outside the South,

mainly in the Northeast and West, as a way to dampen voting by immigrants or to maintain the

Progressive idea that voters needed to be literate to be informed and responsible citizens (Rusk

2001, 18). These non-Southern initiatives were typically initiated by Republicans. In Figure 4,

we present the set of states that employed literacy tests at some point between 1870 and 1970,

labeled in green. Those states in yellow never used a literacy test during this timeframe. Unlike

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[8] In each of the five Congresses from the 77th (1941–42) through 81st (1949–51), the House passed an anti-poll tax bill, and by large margins. In the first three of these Congresses, the House discharged the legislation from the conservative-controlled Rules Committee, which had tried to bottle it up. Each time, the Senate prevented the House-passed bills from becoming law.
[9] Only Arkansas, Florida, Tennessee, and Texas never adopted literacy tests.

the poll tax, a significant number of northeastern and western states employed literacy tests at some point. Like poll taxes, literacy tests should have reduced turnout, though perhaps by only small amounts if they were not rigorously enforced. We would also expect that they would have the effect of limiting Republican success in the South, but improving Republican success outside of the South, where the voting coalitions were quite different.

Figure 4. States that Employed Literacy Tests at Some Point, 1870-1970
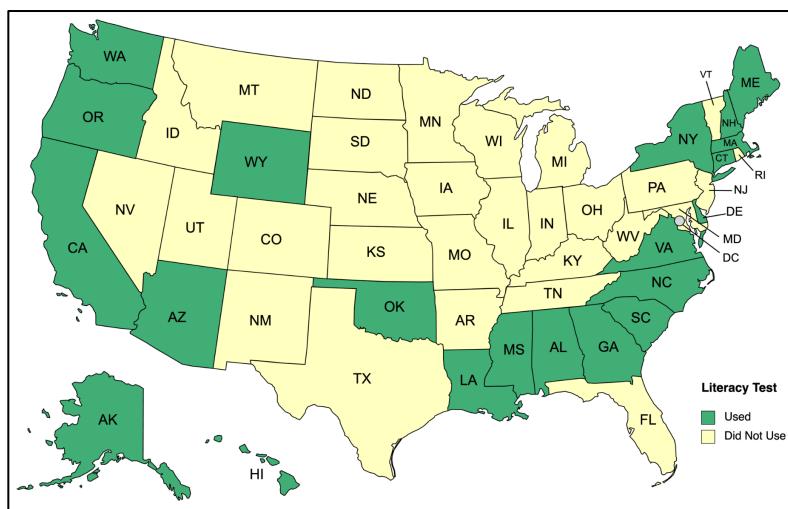
Source: Rusk (2001), Tables 2-17 and 2-19.

Literacy tests saw no within-region erosion as the poll tax had. Congress began to sweep aside literacy tests in the Civil Rights Act of 1964, stipulating that anyone who had completed at least six years of formal education must be presumed literate. In the Voting Rights Act of 1965, Congress suspended the use of literacy tests in all jurisdictions in which less than half of voting-age residents were registered as of November 1, 1964 or had voted in the 1964 presidential election. In 1970, Congress amended the Act and expanded the ban on literacy tests to the entire country, which the Supreme Court upheld in *Oregon v. Mitchell* later that year (Rusk 2001).

Ex-Felon Disenfranchisement

We also consider the role of felon disenfranchisement – prohibiting convicted felons from voting – which started at the state level in the 18th century and thus is almost as old as the country itself (Brooks 2005). Over time, it became a nearly universal policy that continues to the present day. We focus on a more impactful form of the policy that has greater variation: ex-felon disenfranchisement. The key difference between felon and ex-felon disenfranchisement is whether a person convicted of a felony regains the right to vote after serving their sentence. In some states, the right to vote is recovered while in others it is permanently forfeited. This has a more substantial effect as the pool of ex-felons grows larger over time than does the present felon population.

As ex-felon disenfranchisement is a formal restriction that removes voters from eligibility, it thus reduces both the numerator and denominator of the turnout fraction.[10] Because felons have historically voted at lower rates than the rest of the population, these laws generally increase turnout. In the South, we expect these laws had negative effects on Republican success.

In Figure 5, we display the set of states that used Ex-Felon Disenfranchisement at some point between 1870 and 1970.[11] In total, 40 states restricted the voting rights of ex-felons during this period. Although ex-felon laws affected both Whites and Blacks, a change in the prison population in the post-Civil War era – predominantly in the South – suggests that Blacks bore the

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[10] It is important to calibrate these expectations based on the exact way turnout is measured, given that historical turnout is estimated rather than precisely observed. In our case, because our measure of turnout does not exclude felons from the denominator, our own expectation is that ex-felon disenfranchisement would reduce our measure of voter turnout.

[11] By 1968, only 33 states restricted the voting rights of ex-felons. A significant liberalization occurred in the 1970s, such that by 1979 only 18 states retained laws disfranchising ex-felons. Note that Pennsylvania – for a brief period in the 1990s – instituted a five-year waiting period before ex-felons were permitted to register to vote.

brunt. Behrens et al (2003), for example, note that "[i]n many Southern states, the percentage of nonwhite prison inmates nearly doubled between 1850 and 1870." Alabama was an extreme case, as Manza and Uggen (2006: 57) remark that "nonwhites made up just 2 percent of the prison population in 1850, but 74 percent by 1870." This expansion is unsurprising given the presence of slavery in 1850, but shows that the effect of felon disenfranchisement provisions would very quickly shift from primarily working against White voters to heavily limiting African American voting after the Civil War.

Figure 5. States that Employed Ex-Felon Disenfranchisement at Some Point, 1870-1970
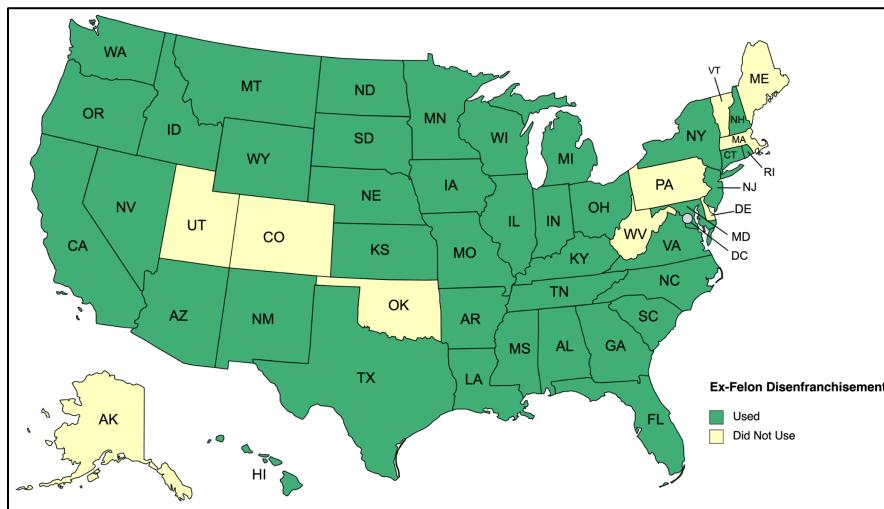
Sources: Behrens et al (2003); Keyssar (2000, 376–86).

The Australian Ballot

Between 1888 and 1920, party ballots – in which Republican and Democrat operatives created and distributed ballots in elections – were replaced by the Australian ballot, which was administered by state governments (Engstrom and Roberts 2020). The Australian ballot listed all candidates for office, not just those of a particular party, and was standardized to allow for secrecy in the voting process. The shift from party ballots to the Australian ballot occurred in every state in the Union, but the change came at different points in time. In Figure 6, we

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illustrate four groupings. Most states (or territories) went to the Australian ballot by 1891, but there was also staggered adoption during the 1890s and throughout the twentieth century.

Figure 6. State Adoption Dates of the Australian Ballot
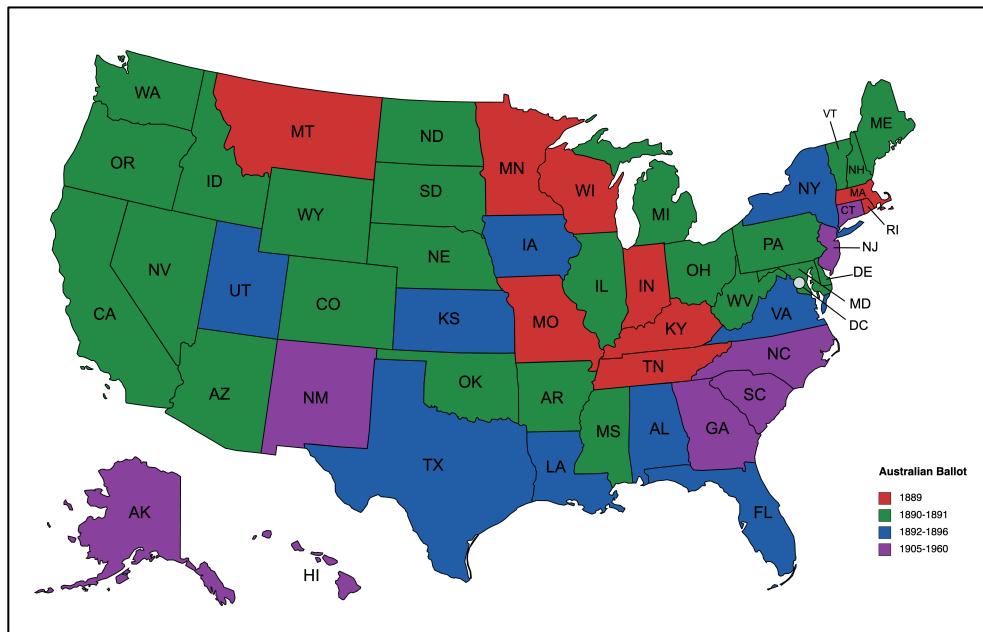
Source: Engstrom and Roberts (2020).

The move to the Australian ballot is typically framed as part of the more general Progressive movement that swept the nation and sought to dampen the power of political parties. However, some Southern Democratic politicians also saw the adoption of the Australian ballot as a way to exclude Black voters, as it necessitated literacy – the ability to read – to be able to vote, something that was not required in the party ballot days when a variety of shortcuts (like color-coded ballots and personal relationships with party operatives) allowed illiterate citizens to exercise their franchise (Kousser 1974; Perman 2001). As illiteracy was highest in the South, and Black illiteracy exceedingly high in that region, Southern Democrats could emphasize the

progressive nature of the Australian ballot while using it as a tool of disenfranchisement.[12]

Because the Australian ballot did not render anyone ineligible to vote, but changed the cost of

voting (potentially in a positive or negative way depending on the voter),[13] there is no uniform

expectation for its effect, though the historical literature suggests that its adoption reduced

turnout.

Other Factors Impacting Turnout and Partisan Success

At the same time these disenfranchising provisions were enacted and in operation, other

events occurred that are worth considering as they may have affected turnout and GOP vote

share. Two stand out in particular: the enfranchisement of women and the practice of lynching.

Women's suffrage – another Progressive initiative – enlarged the potential electorate

dramatically. Three states – Wyoming (1889), Colorado (1893), and Utah (1895) – were early

movers in providing women with the right to vote. Many states followed in the 1910s, with 27

states having women's suffrage laws in place (in some form)[14] before nationalization occurred in

August 1920 with the ratification of the 19th Amendment. Thus, by 1920, the potential electorate

effectively doubled in each state compared to previous election years. This had uncertain results

for both turnout and GOP vote share. While many political commentators at the time believed

women largely held conservative preferences – like being pro-temperance in keeping with strong

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[12] Per the Arkansas secretary of state in 1893: "The [Australian ballot] law works smoothly, quietly, satisfactorily, beautifully, and I pray to God every Southern state may soon have one like it. It neutralizes to a great extent the curse of the Fifteenth Amendment, the Blackest crime of the nineteenth century" (quoted in Perman 2001, 20).

[13] The negative effects were that it created a bar to voting based on literacy. But the Australian ballot also prevented party operatives from watching how an individual voted, which may have made some feel safer and thus more inclined to vote. Those were positive effects.

[14] The laws in 11 of the 27 states only applied to presidential elections. The laws in the other 16 states applied to all elections. See Rusk (2001), Table 2-20, for a list of state-level women's suffrage laws and their political coverage.

religious beliefs – others felt that women gravitated toward progressive and welfare-based policies (Wolbrecht and Corder 2020). Southern Democrats in particular feared that women's suffrage would lead to the downfall of White Supremacy; it is revealing that the 19th Amendment was rejected by seven Southern states (Schuyler 2006).[15] Adding women to the voting-eligible population effectively doubled the denominator for all turnout estimates, which likely influenced turnout substantially.

Lynching was, in the abstract, a form of mob violence deployed for a variety of purposes (such as mob justice and political intimidation) through American history (Berg 2011). But for the purposes of this paper, we consider its role as a terroristic application of White Supremacy. African Americans were menaced, attacked, and killed in mob, communal, and sometimes ritualistic displays of violence. The lynching of African Americans was always highest in the South, and it peaked in the 1890s when disenfranchisement laws began being adopted throughout the ex-Confederacy (see Figure A1). The causes and goals of these events varied, and their larger political purposes have been debated (see, e.g., Smångs 2016; Cook et al 2018), but one use of these attacks was to intimidate African American families from participating in local social, economic, and political life (Epperly et al 2020). And as African Americans during much of our period of analysis were associated with the Republican Party, lynching – and the fear and culture of violence they created – likely dampened GOP vote share.

IV. Data and Empirical Analysis

We estimate the relationship between electoral institutions – poll taxes, literacy tests, Australian ballot laws, and ex-felon disenfranchisement laws – and key electoral outcomes from

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[15] These were Georgia, Alabama, South Carolina, Mississippi, Virginia, Louisiana, and North Carolina. They were joined by two border states: Maryland and Delaware.

1870 to 1970 across the entire United States. We analyze presidential contests at the state level as well as gubernatorial elections. By including gubernatorial elections, we expand our dataset and include state elections, which may plausibly have different patterns than federal elections. The majority of gubernatorial elections occur in years without presidential elections, filling in the time gaps between presidential contests.

We begin our analysis in 1870 with the return of competitive politics after the Civil War and end our analysis a century later in 1970, one election cycle after the Voting Rights and Civil Rights Acts, and coinciding with the final end of literacy-test laws. In total, this provides a 101-year period of analysis, with at least one election in each year and an average of 28.8 elections per year. This is an admittedly long period in which certain factors certainly changed. We might alternatively conceive of two periods. First, the post-Civil War fifty-one years, ending in 1920, which saw the adoption of disenfranchisement laws, the expansion of the right to vote to women, and the adoption of the Australian ballot in almost all states.[16] A second period of fifty years, culminating in 1970 with the final abolition of literacy tests, is the period of voting liberalization that saw a series of voting restrictions crumble as well as a universal or near universal use of the Australian ballot and broad voting eligibility for women. However, our results in these two periods are sufficiently similar – both to each other and the overall results for the 101-year period – that we focus on the entire range from 1870 to 1970 and report the results of the sub-analyses by smaller time periods in the Appendix (Tables A4 and A5).

We use two dependent variables. First, we are interested in turnout as an indirect measure of informal disenfranchisement. For each presidential election and gubernatorial election, we

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[16] The year 1920 is also often used by scholars to indicate the end of the Progressive Era (Wiebe 1966, McGerr 2003, Lear 2009).

define **Turnout** as the number of votes cast in the statewide election divided by the voting

eligible population in the state that year, presented in a 0-100 percentage format (Burnham

2010). Thus, if 1,000 people were eligible to vote and 563 votes were cast, this would take the

value 56.3 in our dataset. The best available estimates for the Voting Eligible Population are

imperfect. They are conditioned on rules about age, sex, race, and nationality status, based on

Census measures, but fail to exclude more granular groups, such as those removed by ex-felons.

Turnout ranged from about 1 percent[17] to 101 percent[18] and averaged 56.5 percent. The unique

case of a theoretically impossible 101% turnout rate are the result of imperfections in the

estimates of the Voting Eligible Population.

Turnout, even if measured perfectly, is limited as it includes both too little and too much

to fully capture disenfranchisement. First, it does not account for formal disenfranchisement. For

example, in the period before the 19th Amendment and earlier state-specific female suffrage

laws, women were not part of the voting eligible population and thus did not influence turnout

percentages. Thus, Turnout does not tell us about the tens of millions of women who were

disenfranchised for more than a century. In addition, Turnout does give us information about

informal disenfranchisement – methods to keep people from voting who had the *de jure* right to

vote. Such people are in the numerator but not the denominator and thus systematically push the

Turnout variable towards zero. However, other things also influence turnout, including the type

of election, the appeal of the contest to voters, and larger social trends. A perfect measure of

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[17] Southern states had extremely low turnout during the early decades of the 20th century. For example, South Carolina did not reach 10 percent turnout in any presidential or gubernatorial general election between 1918 and 1930.
[18] Turnouts slightly larger than the theoretical maximum of 100 percent were reported in the presidential and gubernatorial contests in South Carolina in 1876.

disenfranchisement is not available, and Turnout offers a strong connection. But we move forward cognizant of the limitations of Turnout as a measure.

While election turnout is interesting as an indication of civic liberty and political engagement, we are also interested in the extent to which targeted reduction of turnout through disenfranchisement works to secure power for particular interests. In our case, we are most interested in the ability of southern Democrats in the post-Reconstruction period to exclude Republican-voting Black voters and thus suppress any GOP power in the state. Thus, our second dependent variable is **Republican Vote Share**, which ranged from 0 percent to about 92 percent, with an average of 45.6 percent.[19]

Our key independent variables are a series of dummy variables indicating whether a particular electoral institution was "turned on" at the time of a given election. These variables include **Poll Tax**, **Literacy Test**, **Australian Ballot**, and **Ex-Felon Disenfranchisement**. In each case, the variable takes the value "1" when the institution was on the books and "0" when it was not. We count poll taxes as existing if there was any fee applied to voting, and do not differentiate by amount, whether they accumulated, or other small variations. We count a state as having a literacy test if it had either a reading or a writing test, and do not differentiate based on small inter-state variations.[20] We count Australian Ballot as "1" if the state utilized any form of

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[19] Data on turnout and GOP vote share in presidential and gubernatorial elections come from Burnham (2010).

[20] While short-lived policies like the grandfather or understanding clauses were used by a few states to allow poor Whites to evade the literacy test, we believe they are ripe for misleading results and do not analyze them. And there is little historical evidence that they mattered much. As Perman (2009: 178) notes: "[poor White men] still had to navigate the secret ballot at election time, which would expose them to further humiliation for their ignorance … [and] go to the courthouse and pay their poll taxes as fees for the right to vote, and many of them may have found the cost prohibitive." Note that Keele et al (2021) find that the understanding clause was used against African Americans in Louisiana in the 1950s, based on a parish-level analysis.

the Australian ballot.[21] Finally, we count Ex-Felon Disenfranchisement as "1" if the state

restricted the right to vote after the completion of the incarceration component of the sentence.

Additionally, we include a set of control variables. The first is **Women's Suffrage**, which

takes the value "1" if the state allowed women to vote in that type of election – presidential or

gubernatorial – and when universal enfranchisement occurred with the 19th Amendment. We

also include **Lynchings**, which is a count of the number of lynchings of African Americans that

occurred in that state in that election year.[22] Finally, we also control for the electoral context,

noting when given elections were **Gubernatorial Elections (in a Presidential Year** and **in a**

Non-Presidential Year). The base category is a presidential election.

We are unable to specify how – and how intensely – each policy was enforced in any

given year, and this was surely heterogenous. It is likely that the level of enforcement of the

literacy test, for example, varied based on the preferences of state and local administrators. It is

extremely difficult or impossible for us to measure the varied intensities of enforcement today.

That said, formal state policies empowered local administrators and should have introduced

observably systematic differences where they influenced actual turnout.[23] The historical record

gives us the starting prior that the ex-Confederate states, places with larger Black populations,

and those with more extreme records of institutionalized White Supremacy were more likely to

aggressively use electoral institutions to disenfranchise and shape the electorate. Thus, as a

starter, we include **South**, which we define as the eleven ex-Confederate states, in an interaction

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[21] Australian ballot adoption dates by state come from Engstrom and Roberts (2020).
[22] Our measure of African American lynchings comes from combining data in Ramey (2017),
Seguin (2022), and Tolnay and Beck (2022).
[23] We see our work as complementing analyses like Keele et al (2021), which examines
disenfranchisement at the local level – in this case, at the parish-level in Louisiana – in a state
without particular laws in place.

with each of the electoral institution variables. In a subsequent section, we analyze similar models with a different variable – **Black Percentage of the Population** – in place of South.

Our estimation strategy is a two-way fixed effects Ordinary Least Squares (OLS) model, with year and state fixed effects, allowing our model to estimate, through the difference-in-differences of institutions turning on and off at specific times, the association of different electoral institutions with changes in turnout and Republican vote share. We note that electoral institutions turning off and on is not random, and thus we should be cautious in interpreting the results.[24] Our findings are suggestive, but not definitive. We argue that they are descriptively identified, but not fully causally identified.

We present our results in Table 1, first for Turnout (Models 1 and 2) and then for Republican Vote Share (Models 3 and 4).[25] Models 1 and 3 do not contain the South interaction, while Models 2 and 4 do.

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[24] We are certainly aware of current debates regarding how best to calculate difference-in-differences with a single treatment occurring at multiple points in time (see Huntington-Klein 2021, Chapter 18, section 3, for a good discussion). Our case is considerably harder: multiple treatments occurring at different points in time, with some turning off while others are on.

[25] We do not include coefficients for **Women's Suffrage**, **Lynchings**, and **Gubernatorial Elections** here, so as to focus on our key treatment variables. But the full model appears in Table A1. We follow this rule for Tables 4 and 6 as well (with the full models in Tables A2 and A3).

Table 1. The Effect of Electoral Institutions on Turnout and GOP Vote Share

Variable	(1) Turnout	(2) Turnout	(3) GOP Vote Share	(4) GOP Vote Share
Poll Tax	-22.65**	-18.19**	-10.42**	-8.89**
	(2.33)	(2.11)	(2.67)	(2.70)
Literacy Test	-5.80*	-1.10	-1.34	3.04*
	(2.67)	(2.24)	(1.82)	(1.30)
Literacy Test X South		-7.13*		-9.01**
		(2.81)		(3.04)
Australian Ballot	0.96	3.79	3.63	2.04
	(3.20)	(2.62)	(3.27)	(2.25)
Australian Ballot X South		-9.67*		0.60
		(3.80)		(3.47)
Ex-Felon Disenfranchisement	-3.12	0.20	-1.16	1.87
	(3.02)	(2.28)	(1.76)	(1.22)
Ex-Felon Disenfranchisement X South		-10.54**		-10.34**
		(3.89)		(2.31)
Women's Suffrage	✓	✓	✓	✓
Women's Suffrage X South		✓		✓
Lynchings	✓	✓	✓	✓
Lynchings X South		✓		✓
Gub. Elec. In Pres. Year	✓	✓	✓	✓
Gub. Elec. In Non-Pres. Year	✓	✓	✓	✓
N	2,911	2,911	2,866	2,866
R^2	0.48	0.55	0.41	0.57
Fixed Effects	50 States, 101 Years	50 States, 101 Years	50 States, 101 Years	50 States, 101 Years
Standard Error Clustering	50 States	50 States	50 States	50 States

Note: Numbers in cells are OLS coefficients with clustered robust standard errors in parentheses.
^=p<0.1, *=p<0.05, **=p<0.01

A threshold question is whether there is sufficient variation between the South and the rest of the country to merit exclusively evaluating Models 2 and 4. If the models yield similar results, then the simpler models in Tables 1 and 3 would be preferable. Instead, we find significant differences between Model 1 and Model 2, indicating that there was substantial variation between the South and non-South in the relationship between institutions and turnout. To a lesser – but still meaningful – extent, we observe the same between Model 3 and Model 4. The models with South interactions explain considerably more of the variation and tell a very

different, and more nuanced, story. Thus, we analyze the results in Models 2 and 4. For ease of understanding, we calculate the region-specific relationship by combining the interaction and base terms appropriately for ex-Confederate states, and present them side-by-side with non-South states, as well as the difference between the two. We present these in Table 2 for the Turnout dependent variable and in Table 3 for the Republican Vote Share dependent variable. We reiterate that Tables 2 and 3 do not contain new models, but rather are derived from Models 2 and 4 in Table 1.

Table 2. Regional Estimates Based on Model 2 (Turnout) in Table 1

Variable	Non-South	South	Difference
Poll Tax	N/A	-18.19**	N/A
		(2.11)	
Literacy Test	-1.10	-8.23**	-7.13*
	(2.24)	(2.12)	(3.11)
Australian Ballot	3.79	-5.88	-9.67*
	(2.62)	(3.51)	(4.38)
Ex-Felon Disenfranchisement	0.20	-10.35**	-10.55**
	(2.28)	(2.99)	(3.76)

Table 3. Regional Estimates Based on Model 4 (GOP Vote Share) in Table 1

Variable	Non-South	South	Difference
Poll Tax	N/A	-8.89**	N/A
		(2.70)	
Literacy Test	3.04*	-5.97*	-9.01**
	(1.30)	(2.79)	(3.00)
Australian Ballot	2.04	2.64	0.60
	(2.25)	(3.49)	(4.15)
Ex-Felon Disenfranchisement	1.87	-8.48**	-10.35**
	(1.22)	(2.13)	(2.45)

First, we find that the poll tax, used exclusively in the South, was most strongly associated with reducing Turnout. All else equal, when Southern states had a poll tax, their turnout was about 18-percentage points lower. And this had the intended effect: about a nine-

percentage point reduction in Republican Vote Share. This is confirmatory evidence that the poll tax substantially contributed to disenfranchising poor (and largely African American) voters and guaranteeing the (White) supremacy of the Democratic Party in these states.

Second, we find that literacy tests outside of the South were not significantly associated with any change in turnout. Our best estimate is that they reduced turnout by less than one percentage point, with a 95% confidence interval between -5 and +3 percentage points. This likely reflects that, though these laws remained "on the books" in many non-Southern states into the mid 20th century, with near universal literacy and weak application, there was no discernable impact on turnout. Outside of the South, where the Republicans were far more likely to be in power, we find evidence of about a three-percentage point pro-GOP effect of literacy tests.

Literacy tests in Southern states were another matter altogether. Southern literacy tests, likely enforced with much more vigor and discriminatory intent against African American voters, are associated with about an eight-percentage point reduction in Turnout and about a six-percentage point reduction in Republican Vote Share. In Southern states, literacy tests proved an effective secondary tool to limit voter turnout by those who might vote against the dominant southern Democrats.[26]

We find no discernable relationship between shifts to using the Australian ballot and turnout or with Republican vote share. Adopting the Australian ballot, all else equal, did not drastically change the composition of the electorate or the electoral success of either major party. Interestingly, we do still find a statistically significant difference between the South and the non-South. While the Australian ballot is associated with an increase in turnout, it is associated with a decrease in the South, of about equal size. So, while neither alone is significantly distinguishable

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[26] It was secondary in the sense that one had to pay a poll tax before even facing a literacy test.

from zero, the difference between them is—giving some evidence of a different impact of the switch to the Australian ballot.[27] While we cannot speak to long-term changes in political culture that the Australian ballot may have contributed to, we find little evidence that adoption of the Australian ballot directly impacted turnout or voting.

Finally, ex-felon disenfranchisement policies had no meaningful impact on turnout or partisan results outside of the South. We estimate both coefficients to be less than two-percentage points and with confidence intervals that overlap zero. Again, however, the South is a different story. There, ex-felon disenfranchisement policies are strongly associated with reduced Turnout (by about 10 percentage points) and reduced Republican Vote Share (by about 8.5 percentage points). This points to ex-felon disenfranchisement as an impactful policy on the level of, or exceeding, literacy tests within the South. Excluding felons and ex-felons from voting, coupled with an aggressive criminal justice system unfairly employed against African Americans, yielded substantial drops in turnout and GOP vote in the South.

In sum, we find robust evidence that Southern efforts at voter disenfranchisement through formal policies, unsurprisingly, helped maintain White Supremacy. Though other variations and institutions were attempted, the poll tax, ex-felon disenfranchisement laws, and literacy tests formed an arsenal that was extremely effective at depriving African Americans (and poor Whites) of their right to vote and guaranteeing Democratic control.

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[27] Here we consider all forms of the Australian Ballot as equivalent. Scholars sometimes consider different ballot forms with various qualities, some putting up larger barriers to partisan voting than others (Engstrom and Roberts 2020). In separate analyses, we investigated these various forms and found no meaningful difference in results between "Office Bloc" and "Party Column" ballot styles or between those that do or do not include a straight-line party vote box.

V. Digging Deeper: Race as a Driving Factor for Southern Electoral Outcomes

Our main model relies on a blunt South-versus-the-rest-of-the-country coding, where we estimate an association of each electoral institution for both Southern and non-Southern states. This is decidedly limited and fails to get at what might drive the significant differences between the two regions. There is nothing magical about the designation "South" that changes the impact of electoral institutions. Instead, there must be a more complete explanation that differentiates the ex-Confederate states from the rest of the country. With no novelty, we focus on the importance of race in Southern electoral politics.

The story of disenfranchisement in America is largely about race and specifically the removal of African Americans from the electorate—something formally prohibited by the 15th Amendment, but informally and indirectly possible through alternative electoral institutions. One possibility is that "South" is effectively a proxy for places with large African American populations and an entrenched culture of White Supremacy that was powerful enough not only to support slavery but to participate (through secession) in a bloody civil war to preserve it. Though racism was present across the country, with segregation and blatant discrimination common through the mid-20th century, it is plausible that the ex-Confederate states had a political culture among White elites that would tolerate more extreme applications of White Supremacy to maintain power. It is also true that the large African American populations in the South were potentially winning coalitions, likely for Republican candidates for much of the time period we analyze. Thus, White Southern Democrats had more to gain from aggressive exclusion.

State demographics are important, not just for a cultural or political explanation, but also in simple numbers. Even if there was a pointed effort to remove the Black population from politics across all states equally, then the disenfranchising institutions should have been more

impactful in places with a larger African American population share, namely the post-Confederate South. Thus, we re-estimate our models with **Black Percentage of the Population** as an alternative interactive variable.[28] Because the African American share of the population varies within states over time – unlike South – this variable is included both on its own and as part of interaction terms. Across our entire dataset, the average of Black Percentage of the Population was 9.66 percent, ranging from 0.06 percent to 60.7 percent. The average was 33.6 percent and 2.7 percent among Southern and non-Southern states, respectively. This confirms the stark difference between the two regions.

We present the results for models with Turnout as the dependent variable in Table 4. We see that racial demographics offer a substantial explanation for the unique impact of Southern electoral institutions. In Model 1, we find a strong relationship between electoral institutions, racial demographics, and turnout. Because these are interactive models, it is important to evaluate the coefficients at appropriate levels of the component variables. For example, neither Poll Tax nor the interaction, Poll Tax X Black Percentage of Population, have a significant coefficient. However, the marginal effect of Poll Tax becomes significant at the $p<0.05$ level around the point when the Black share of the population crosses five percent. In the average Southern state, this amounts to about a 19.57 percentage-point reduction in turnout, in line with estimates in prior models in this paper.

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[28] Data drawn from the U.S. Census (various years). Because Black Percentage of the Population is only reported every 10 years, we linearly interpolate between decennial censuses.

Table 4. The Effect of Electoral Institutions and Racial Demographics on Turnout

	(1) All States	(2) South	(3) Non-South
Black Percentage of the Population	0.38	0.78**	-0.62
	(0.21)	(0.19)	(0.41)
Poll Tax	-14.92	4.22	*Not Observed*
	(9.08)	(7.21)	
Poll Tax X Black Percentage of the Population	-0.13	-0.51*	*Not Observed*
	(0.27)	(0.22)	
Literacy Test	-2.12	-15.40	-5.72**
	(2.21)	(9.45)	(2.09)
Literacy Test X Black Percentage of the Population	-0.02	0.43	0.95*
	(0.08)	(0.26)	(0.37)
Australian Ballot	4.01	6.99	-0.06
	(2.76)	(8.03)	(3.64)
Australian Ballot X Black Percentage of the Population	-0.29*	-0.27	0.53
	(0.11)	(0.23)	(0.33)
Ex-Felon Disenfranchisement	-0.27	13.02	-1.31
	(1.85)	(10.55)	(1.71)
Ex-Felon Disenfranchisement X Black Percentage of the Population	-0.23**	-0.55*	0.10
	(0.08)	(0.20)	(0.22)
Women's Suffrage	✓	✓	✓
Women's Suffrage X Black Percentage of the Population	✓	✓	✓
Lynchings	✓	✓	✓
Lynchings X Black Percentage of the Population	✓	✓	✓
Gub. Elec. In Pres. Year	✓	✓	✓
Gub. Elec. In Non-Pres. Year	✓	✓	✓
N	2,681	612	2,069
R^2	0.53	0.65	0.32
Fixed Effects	50 States, 101 Years	11 States, 101 Years	39 States, 101 Years
Clustering	50 States	11 States	39 States

Note: Numbers in cells are OLS coefficients with clustered robust standard errors in parentheses. ^=p<0.1, *=p<0.05, **=p<0.01

To take this interactive into account for all four main electoral institutions we analyze, we estimated the effect of each variable at four relevant level of Black Percentage of Population, based on Model 1 in Table 4. We use the minimum observed percentage (0.06 percent), the

average in Non-Southern states (2.7 percent), the average in Southern states (33.15 percent), and the maximum observed percentage (60.7 percent). The results are presented in Table 5.

Table 5. Marginal Effects Estimated from Model 1 in Table 4

Variable	Minimum Percent Black (0.06 percent)	Avg. Non-South Percent Black (2.7 percent)	Avg. South Percent Black (33.15 percent)	Maximum Percent Black (60.7 percent)
Poll Tax			-19.26** (2.95)	-22.87** (8.56)
Literacy Test	-2.12 (2.21)	-2.17 (2.11)	-2.75 (2.56)	-3.27 (4.38)
Australian Ballot	4.00 (2.75)	3.24 (2.56)	-5.44* (2.75)	-13.29* (5.43)
Ex-Felon Disenfranchisement	-0.28 (1.85)	-0.90 (1.75)	-8.05** (2.45)	-14.52** (4.45)

In addition to the large impact of the poll tax, we also find that in the average Southern state (by Black share of the population), the Australian ballot and ex-felon disenfranchisement each is associated with a significantly reduced turnout (by about 5.5 and 8 percentage points, respectively). The literacy test's relationship with turnout does not appear to have been mediated by the Black share of the population. The simplest explanation for this is that the poll tax and ex-felon disenfranchisement substantially reduced the number of African Americans who could have been disenfranchised by the literacy test.[29] Our results suggest that literacy tests may have been used in Southern states to remove those who would not have been as thoroughly removed by other institutions – likely a predominantly White set of voters, such as Populists.

In Table 6, we continue our analysis, by replicating Table 4 with Republican Vote Share as the dependent variable. We then replicate Table 5 via Table 7, showing the interactive effects

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[29] In other analyses (not reported), we also find that the impact of the literacy test was not conditional on actual literacy rates.

for representative levels of state racial diversity. Other than the changed dependent variable, all

other features of the models remain the same.

Table 6. The Effect of Electoral Institutions and Racial Demographics on GOP Vote Share

	(1) All States	(2) South	(3) Non-South
Black Percentage of the Population	0.15	0.39^	-0.59*
	(0.10)	(0.21)	(0.27)
Poll Tax	12.48^	26.68**	*Not Observed*
	(6.27)	(5.69)	
Poll Tax X Black Percentage of the Population	-0.64**	-0.86**	*Not Observed*
	(0.18)	(0.17)	
Literacy Test	3.23*	1.25	2.00^
	(1.27)	(7.76)	(1.13)
Literacy Test X Black Percentage of the Population	-0.06	0.09	0.20
	(0.08)	(0.19)	(0.15)
Australian Ballot	2.06	12.38^	-3.60**
	(2.32)	(6.45)	(1.12)
Australian Ballot X Black Percentage of the Population	-0.09	-0.30^	0.43**
	(0.08)	(0.16)	(0.15)
Ex-Felon Disenfranchisement	2.37	6.79	0.27
	(1.30)	(7.02)	(1.70)
Ex-Felon Disenfranchisement X Black Percentage of the Population	-0.30**	-0.30*	0.31^
	(0.06)	(0.13)	(0.16)
Women's Suffrage	✓	✓	✓
Women's Suffrage X Black Percentage of the Population	✓	✓	✓
Lynchings	✓	✓	✓
Lynchings X Black Percentage of the Population	✓	✓	✓
Gub. Elec. In Pres. Year	✓	✓	✓
Gub. Elec. In Non-Pres. Year	✓	✓	✓
N	2,865	665	2,200
R^2	0.56	0.58	0.32
Fixed Effects	50 States, 101 Years	11 States, 101 Years	39 States, 101 Years
Clustering	50 States	11 States	39 States

Note: Numbers in cells are OLS coefficients with clustered robust standard errors in parentheses.
^=p<0.1, *=p<0.05, **=p<0.01

Table 7. Marginal Effects Estimated from Model 1 in Table 6

Variable	Minimum Percent Black (0.06 percent)	Avg. Non-South Percent Black (2.7 percent)	Avg. South Percent Black (33.15 percent)	Maximum Percent Black (60.7 percent)
Poll Tax			-8.71**	-26.32**
			(1.98)	(5.34)
Literacy Test	3.22*	3.06*	1.17	-0.54
	(1.27)	(1.21)	(2.46)	(4.50)
Australian Ballot	2.06	1.83	-0.80	-3.17
	(2.31)	(2.19)	(2.03)	(3.53)
Ex-Felon Disenfranchisement	2.36*	1.57	-7.47**	-15.66**
	(1.30)	(1.25)	(1.98)	(3.44)

As the historical record informs us, the goals of disenfranchising institutions were multi-fold. In addition to the White supremacist opposition to Blacks participating in politics, there was the instrumental goal of guaranteeing Democratic control in the Southern states. Thus, we should observe that not only did these electoral institutions exclude prospective voters, but it also reduced the GOP's vote shares in these elections. And that is what we find. The poll tax and ex-felon disenfranchisement are strongly associated with reduced support for Republicans in the South. In the average Southern state (by Black share of the population), the poll tax and ex-felon disenfranchisement were each associated with significantly reduced GOP vote share (by about 8.5 and 7.5 percentage points, respectively). And at the highest observed Black population shares, those reductions tripled and doubled, respectively. Literacy tests in these Southern contexts, though, added almost nothing on top of that.

VI. County-Level Analysis

State-level analyses offer descriptions – and some explanations – of the differences between the units at which most electoral institutions were set: states. But these state analyses struggle to aid explanation of why the differences emerged or how they functioned in practice.

For example, while we observe a strong correlation between the share of the population that was Black in a given state and turnout reductions associated with restrictive electoral institutions, these institutions were not adopted at random and full causal identification is not possible. Southern states had uniquely high shares of their population made up of African Americans, in ways that make it difficult to compare to other states. But if we move our analysis to the county level, other possibilities emerge. Some non-Southern counties had relatively high racial diversity and some Southern counties were almost entirely White. If it is true that the restrictive electoral institutions primarily worked in the South against African Americans, then we should observe the greatest turnout effects in places that had very large Black populations, and far less in the almost entirely White Appalachian counties of the South.

We investigate this by constructing a dataset of county-level election turnout in Presidential elections from 1872 to 1968 (Clubb et al 2006). For each county, in each state, in each election, we use the estimate of turnout based on the total number of votes cast in the county and the estimated county adult population of those broadly eligible to vote (such as the adult male citizen population before the expansion of suffrage to women). We note that this is not exactly equivalent to the Voting Eligible Population, as the share of non-citizens and those otherwise legally ineligible to vote are not precisely estimable. This gives us an estimate of **Voter Turnout (County)** for each county-election observation.

Additionally, we rely on U.S. Census data from each decennial census between 1870 and 1970 to estimate the percentage of the population that was Black in each county as of the year of a given election. For the presidential elections held in census years – 1880, 1900, 1920, 1940, and 1960 – we use the estimate of that year's census without changes. For elections falling between censi, we linearly impute the percentage from a combination of the decennial census

before and after the election. Thus, each county in 1872 receive a percentage equivalent to the 1870 census value for that county plus 20% of the change from 1870 to 1880. In 1876, the county receives the 1870 percentage plus 60% of the change from 1870 to 1880. This is replicated through the entire dataset to produce an estimate for each county-election from 1872 to 1968. We call this variable **Black Percentage of the Population (County)**.

Otherwise, we replicate our variables from prior models, with the same set of institutions and controls, with fixed effects now set at the election and county levels. We initially attempt the three main models of prior tables: a non-interactive models, a model interacted with a South dummy variable showing consistent differences in the South, and finally an interactive model with Black % of the Population (County), which shows to what extent it was county-level demographics that explain variation. We present the results in Table 8.

Table 8. The Effect of Electoral Institutions on Turnout and GOP Vote Share

Variable	(1) Turnout	(2) Turnout (South Interaction)	(3) Turnout (Black Percentage Interaction)
Poll Tax	-18.33** (0.38)	-15.99** (0.35)	-14.91** (0.61)
Poll Tax X Black Percentage of the Population			-7.62** (1.71)
Literacy Test	-8.90* (0.55)	4.00** (0.66)	0.69 (0.57)
Literacy Test X South / Black Percentage of the Population		-14.73** (0.83)	-22.31** (1.60)
Australian Ballot	0.66 (0.45)	4.83** (0.52)	4.68** (0.49)
Australian Ballot X South / Black Percentage of the Population		-4.36** (0.65)	-19.75** (1.35)
Ex-Felon Disenfranchisement	-0.39 (0.73)	2.06* (0.84)	2.17** (0.76)
Ex-Felon Disenfranchisement X South / Black Percentage of the Population		-6.19** (1.30)	-20.49** (2.21)
Women's Suffrage	✓	✓	✓
Women's Suffrage X South / Black Percentage of the Population		✓	✓
N	70,600	70,600	70,588
R^2	0.46	0.53	0.41
Fixed Effects	3,143 counties, 25 elections	3,143 counties, 25 elections	3,131 counties, 25 elections
Standard Error Clustering	3,143 counties	3,143 counties	3,131 counties

Note: Numbers in cells are OLS coefficients with clustered robust standard errors in parentheses. ^=p<0.1, *=p<0.05, **=p<0.01

These county-level analyses on presidential elections broadly conform to our state-level results in prior models with two exceptions: while state models had indicated that literacy tests and the adoption of the Australian Ballot were not strongly associated with a race-based effect, our county-level models indicate otherwise. We find that the effect of literacy tests was almost entirely associated with the percent of a county that was Black, with no apparent relationship

otherwise. This indicates that, at least in presidential elections, while state demographics may not have strongly correlated with the role of literacy tests, within states, it was in counties with large Black populations that they had their strongest association with turnout. Similarly, we find that the Australian Ballot's relationship with turnout was also strongest in counties with the largest Black shares of the population.

Otherwise, we observe broadly similar patterns, with poll taxes and ex-felon disenfranchisement showing strong negative relationships with turnout, especially in counties with large Black populations. Much as in the state-level analyses, we come away with the strong takeaway that the poll tax was the most potent formal institution of disenfranchisement with other institutions having a significant relationship but one that only reached comparable levels to the poll tax in counties that were heavily African American.

VII. Discussion

Our goal in this paper was to provide some evidence of the relative impacts of different electoral institution choices on voter turnout and Republican Party electoral success in America after the Civil War. This is a statistically difficult task because states chose not simply one, but a variety of different institutions to control the voting population. And these institutions were not arrived at randomly, but based on local political cultures and the needs of self-interested elites. Thus, they were geographically and temporally clustered. What we present then is a general empirical look at the associations between these institutions and voting outcomes.

We find that the poll tax, exclusively but universally used by the ex-Confederate States, was a remarkably effective tool to disenfranchise voters. The poll tax, rigorously applied, could exclude as much as 23 percent of the electorate from voting by increasing the cost of doing so. Because these voters were far more likely to favor the Republican Party, this dealt a crushing

blow to the GOP's hopes of winning in the South. We also find that the practice of ex-felon disenfranchisement was strongly associated with reduced turnout and Republican weakness. In each case, the relationship is strongest in places with large Black populations, indicating that these institutions were tools used to exclude African Americans from the political process.

We find less clear evidence for the impact of literacy tests and the Australian ballot. While literacy tests in the South were much more strongly associated with turnout than literacy tests outside of the South, we find mixed results on how exactly this worked, with state-level analyses and county-level analyses offering opposite conclusions on whether this was a primarily race-driven effect. In general, we find that disenfranchising institutions were effective (at their apparent goals) and that each contributed something, and that many or potentially all were disproportionately associated with lower turnouts in the South and in counties with large Black populations.

Michael Perman (2009: 178) states that "Disenfranchisement transformed the electoral system in the South," and our results both confirm this statement and provide some precision on what laws actually did the work. Our research also corroborates the work of Perman, Kousser (1974), and others: while African Americans were the main target of the disenfranchising provisions, poor – often illiterate – Whites were acceptable collateral damage. The Democratic leadership in the South sought to reduce uncertainty in elections, and poll taxes, ex-felon laws, and other disenfranchising provisions accomplished that by effectively eliminating the Republican Party as well as the Populists and any fusion organizations that might try to align Black and poor White voters. Once these various laws were in place, "Elections became quieter and more orderly and were attended by far fewer people" (Perman 2009: 178). This would be the status quo in the South for nearly three-quarters of a century.

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Estimating Disenfranchisement in U.S. Elections, 1870-1970

<u>Supplemental Appendix</u>

Table A1. The Effect of Electoral Institutions on Turnout and GOP Vote Share

Variable	(1) Turnout	(2) Turnout	(3) GOP Vote Share	(4) GOP Vote Share
Poll Tax	-22.65**	-18.19**	-10.42**	-8.89**
	(2.33)	(2.11)	(2.67)	(2.70)
Literacy Test	-5.80*	-1.10	-1.34	3.04*
	(2.67)	(2.24)	(1.82)	(1.30)
Literacy Test X South		-7.13*		-9.01**
		(2.81)		(3.04)
Women's Suffrage	-8.79*	-8.05*	-3.24^	-3.37^
	(3.70)	(3.77)	(1.92)	(1.90)
Women's Suffrage X South		-6.57^		0.20
		(3.45)		(2.35)
Australian Ballot	0.96	3.79	3.63	2.04
	(3.20)	(2.62)	(3.27)	(2.25)
Australian Ballot X South		-9.67*		0.60
		(3.80)		(3.47)
Ex-Felon Disenfranchisement	-3.12	0.20	-1.16	1.87
	(3.02)	(2.28)	(1.76)	(1.22)
Ex-Felon Disenfranchisement X South		-10.54**		-10.34**
		(3.89)		(2.31)
Lynchings	0.28	1.57**	-0.06	-0.45*
	(0.19)	(0.51)	(0.16)	(0.18)
Lynchings X South		-1.89**		0.30
		(0.53)		(0.26)
Gub. Elec. In Pres. Year	-3.59**	-3.92**	-2.72**	-2.82**
	(0.69)	(0.69)	(0.70)	(0.71)
Gub. Elec. In Non-Pres. Year	-15.99^	-15.00^	7.55	5.81
	(8.83)	(8.12)	(4.70)	(4.02)
N	2,911	2,911	2,866	2,866
R^2	0.48	0.55	0.41	0.57
Fixed Effects	50 States, 101 Years	50 States, 101 Years	50 States, 101 Years	50 States, 101 Years
Standard Error Clustering	50 States	50 States	50 States	50 States

Note: Numbers in cells are OLS coefficients with clustered robust standard errors in parentheses.
^=p<0.1, *=p<0.05, **=p<0.01

Table A2. The Effect of Electoral Institutions and Racial Demographics on Turnout

	(1) All States	(2) South	(3) Non-South
Black Percentage of the Population	0.38	0.78**	-0.62
	(0.21)	(0.19)	(0.41)
Poll Tax	-14.92	4.22	*Not Observed*
	(9.08)	(7.21)	
Poll Tax X Black Percentage of the Population	-0.13	-0.51*	*Not Observed*
	(0.27)	(0.22)	
Literacy Test	-2.12	-15.40	-5.72**
	(2.21)	(9.45)	(2.09)
Literacy Test X Black Percentage of the Population	-0.02	0.43	0.95*
	(0.08)	(0.26)	(0.37)
Australian Ballot	4.01	6.99	-0.06
	(2.76)	(8.03)	(3.64)
Australian Ballot X Black Percentage of the Population	-0.29*	-0.27	0.53
	(0.11)	(0.23)	(0.33)
Ex-Felon Disenfranchisement	-0.27	13.02	-1.31
	(1.85)	(10.55)	(1.71)
Ex-Felon Disenfranchisement X Black Percentage of the Population	-0.23**	-0.55*	0.10
	(0.08)	(0.20)	(0.22)
Women's Suffrage	-7.24^	-39.80**	-4.92
	(3.69)	(11.53)	(3.76)
Women's Suffrage X Black Percentage of the Population	-0.32**	0.57*	-1.28**
	(0.11)	(0.21)	(0.25)
Lynchings	1.41*	-0.25	0.16
	(0.53)	(0.49)	(0.82)
Lynchings X Black Percentage of the Population	-0.04**	-0.00	0.04
	(0.01)	(0.01)	(0.05)
Gub. Elec. In Pres. Year	-4.13**	-3.76*	-4.25**
	(0.75)	(1.52)	(0.91)
Gub. Elec. In Non-Pres. Year	-17.11*	-7.89*	-22.91*
	(8.11)	(2.59)	(8.66)
N	2,681	612	2,069
R^2	0.53	0.65	0.32
Fixed Effects	50 States, 101 Years	11 States, 101 Years	39 States, 101 Years
Clustering	50 States	11 States	39 States

Note: Numbers in cells are OLS coefficients with clustered robust standard errors in parentheses.
^=$p<0.1$, *=$p<0.05$, **=$p<0.01$

Table A3. The Effect of Electoral Institutions and Racial Demographics on GOP Vote Share

	(1) All States	(2) South	(3) Non-South
Black Percentage of the Population	0.15	0.39^	-0.59*
	(0.10)	(0.21)	(0.27)
Poll Tax	12.48^	26.68**	*Not Observed*
	(6.27)	(5.69)	
Poll Tax X Black Percentage of the Population	-0.64**	-0.86**	*Not Observed*
	(0.18)	(0.17)	
Literacy Test	3.23*	1.25	2.00^
	(1.27)	(7.76)	(1.13)
Literacy Test X Black Percentage of the Population	-0.06	0.09	0.20
	(0.08)	(0.19)	(0.15)
Australian Ballot	2.06	12.38^	-3.60**
	(2.32)	(6.45)	(1.12)
Australian Ballot X Black Percentage of the Population	-0.09	-0.30^	0.43**
	(0.08)	(0.16)	(0.15)
Ex-Felon Disenfranchisement	2.37	6.79	0.27
	(1.30)	(7.02)	(1.70)
Ex-Felon Disenfranchisement X Black Percentage of the Population	-0.30**	-0.30*	0.31^
	(0.06)	(0.13)	(0.16)
Women's Suffrage	-2.64	-19.05	-3.36^
	(2.00)	(11.60)	(1.96)
Women's Suffrage X Black Percentage of the Population	-0.20**	0.07	0.02
	(0.05)	(0.10)	(0.11)
Lynchings	-0.19	-0.24	-0.43
	(0.39)	(0.43)	(0.58)
Lynchings X Black Percentage of the Population	0.00	0.01	0.01
	(0.01)	(0.01)	(0.03)
Gub. Elec. In Pres. Year	-2.77**	-9.51	-0.64**
	(0.70)	(1.70)	(0.21)
Gub. Elec. In Non-Pres. Year	3.64	3.22	-2.11
	(3.88)	(5.43)	(2.61)
N	2,865	665	2,200
R^2	0.56	0.58	0.32
Fixed Effects	50 States, 101 Years	11 States, 101 Years	39 States, 101 Years
Clustering	50 States	11 States	39 States

Note: Numbers in cells are OLS coefficients with clustered robust standard errors in parentheses.
^=p<0.1, *=p<0.05, **=p<0.01

Table A4. The Effect of Electoral Institutions and Racial Demographics on Turnout by Time Period

|	(1) 1870-1920	(2) 1921-1970
Poll Tax	-21.94**	-12.73**
	(6.45)	(1.75)
Literacy Test	1.56	1.15
	(3.15)	(1.83)
Literacy Test X South	-9.41^	-14.77**
	(5.06)	(2.40)
Australian Ballot	3.27	-8.54^
	(2.76)	(4.83)
Australian Ballot X South	-7.54	10.42^
	(6.20)	(5.19)
Ex-Felon Disenfranchisement	6.83*	-1.45
	(2.89)	(1.56)
Ex-Felon Disenfranchisement X South	-16.87*	-13.83**
	(6.91)	(2.23)
Women's Suffrage	✓	✓
Women's Suffrage X South	✓	✓
Lynchings	✓	✓
Lynchings X South	✓	✓
Gub. Elec. In Pres. Year	✓	✓
Gub. Elec. In Non-Pres. Year	✓	✓
N	1,463	1,448
R^2	0.42	0.58
Fixed Effects	48 States, 51 Years	50 States, 50 Years
Clustering	48 States	50 States

Note: Numbers in cells are OLS coefficients with clustered robust standard errors in parentheses.
^=$p<0.1$, *=$p<0.05$, **=$p<0.01$

Table A5. The Effect of Electoral Institutions and Racial Demographics on GOP Vote Share by Time Period

	(1) 1870-1920	(2) 1921-1970
Poll Tax	-9.95^	-7.07
	(5.85)	(4.85)
Literacy Test	3.71*	0.60
	(1.67)	(1.73)
Literacy Test X South	-9.08^	-6.78
	(5.09)	(6.77)
Australian Ballot	0.53	0.20
	(2.13)	(2.19)
Australian Ballot X South	-0.12	10.32
	(4.55)	(8.01)
Ex-Felon Disenfranchisement	3.55^	-0.33
	(2.07)	(1.14)
Ex-Felon Disenfranchisement X South	-12.19*	-13.05*
	(4.69)	(4.89)
Women's Suffrage	✓	✓
Women's Suffrage X South	✓	✓
Lynchings	✓	✓
Lynchings X South	✓	✓
Gub. Elec. In Pres. Year	✓	✓
Gub. Elec. In Non-Pres. Year	✓	✓
N	1,411	1,455
R^2	0.57	0.53
Fixed Effects	48 States, 51 Years	50 States, 50 Years
Clustering	48 States	50 States

Note: Numbers in cells are OLS coefficients with clustered robust standard errors in parentheses.
^=p<0.1, *=p<0.05, **=p<0.01

Figure A1: Number of African Americans Lynched, 1870-1970
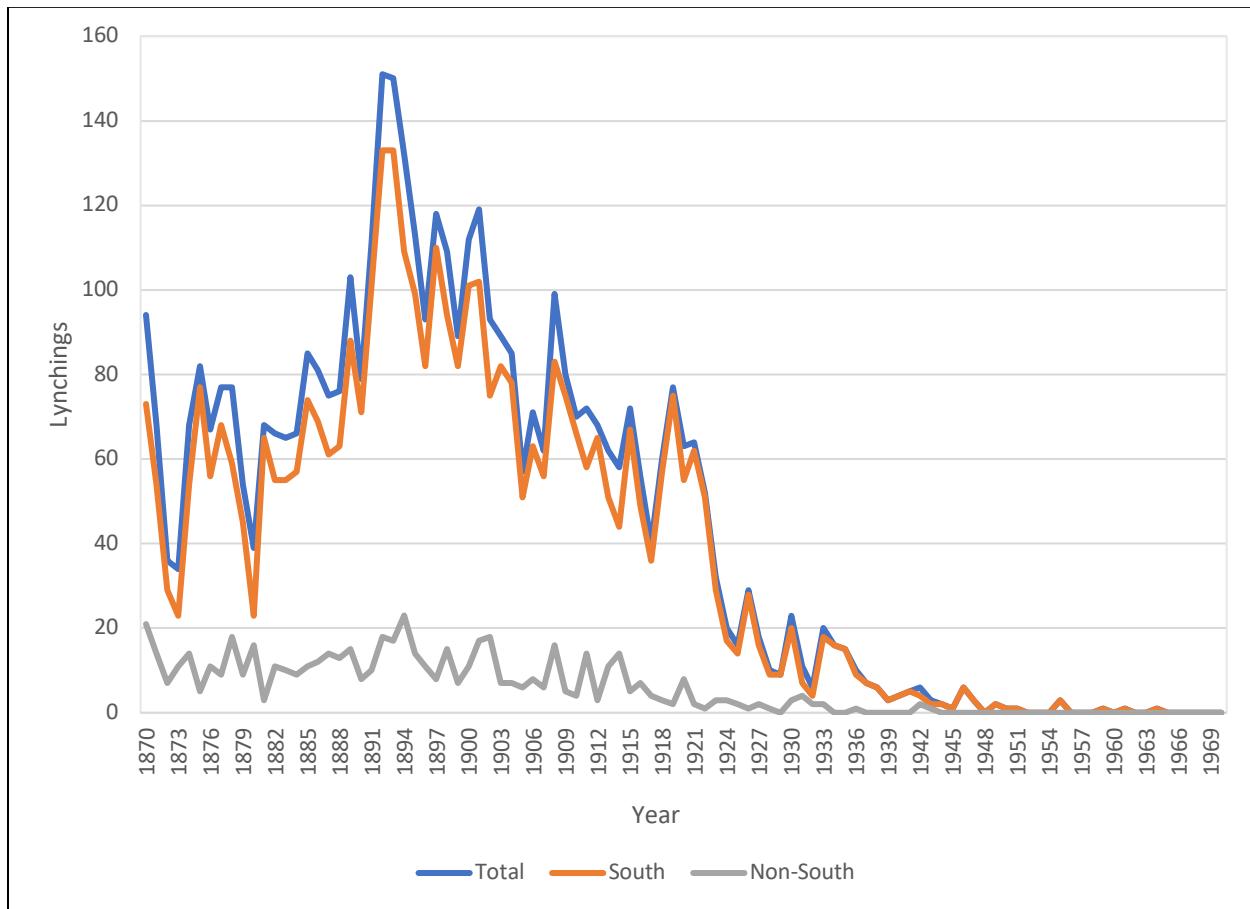
Sources: Ramey (2017), Seguin (2022), and Tolnay and Beck (2022).